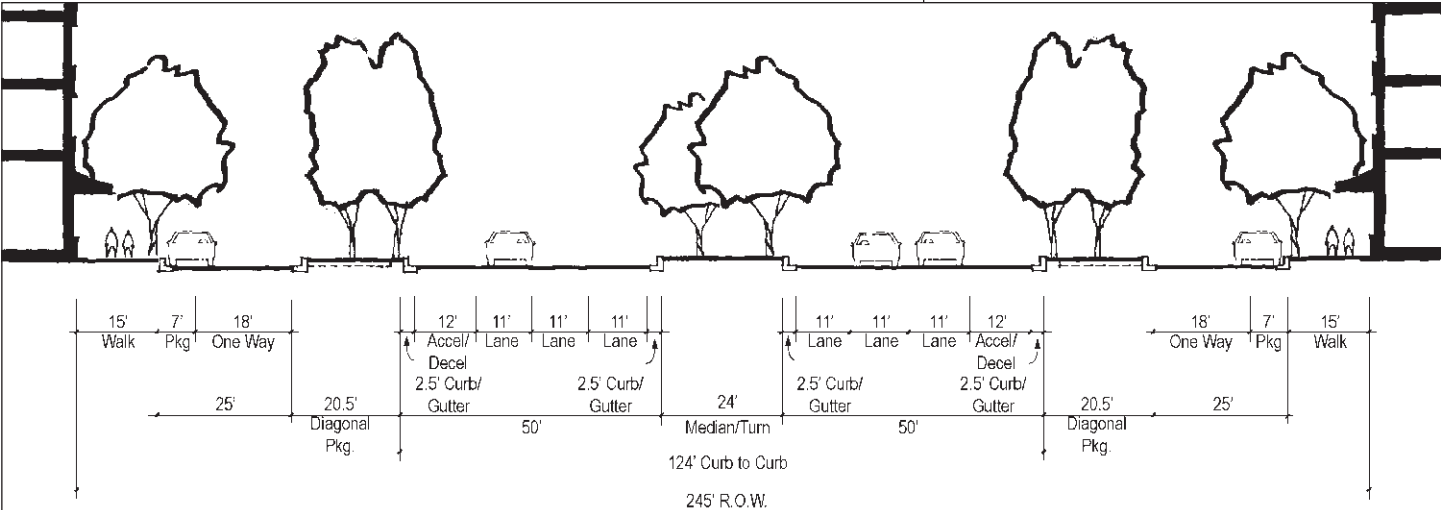


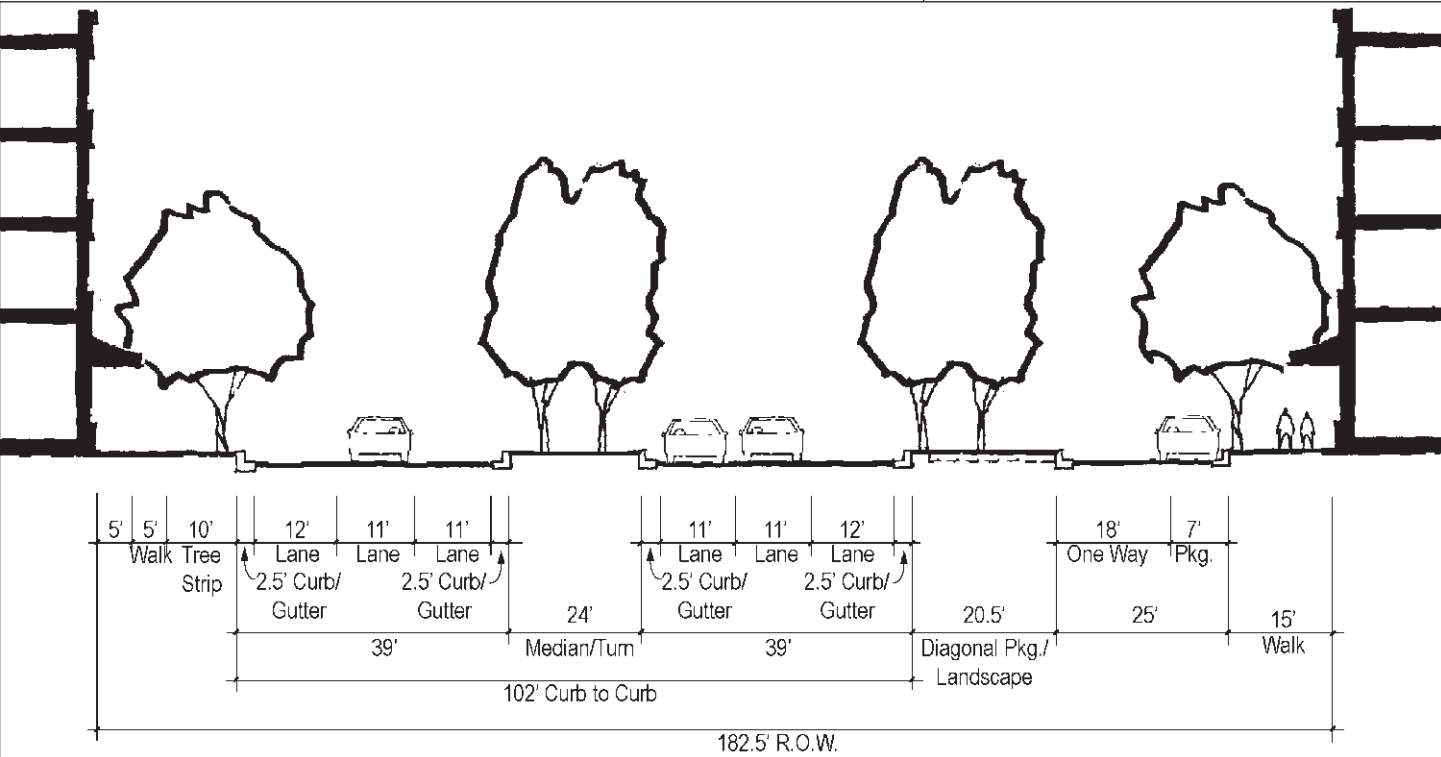
Exhibit 18
Limited Access Arterials Key Map

Cross Sections for Limited Access Roadways



Paseo del Norte (Access Lane Both Sides) – Urban Boulevard

Cross Section 3

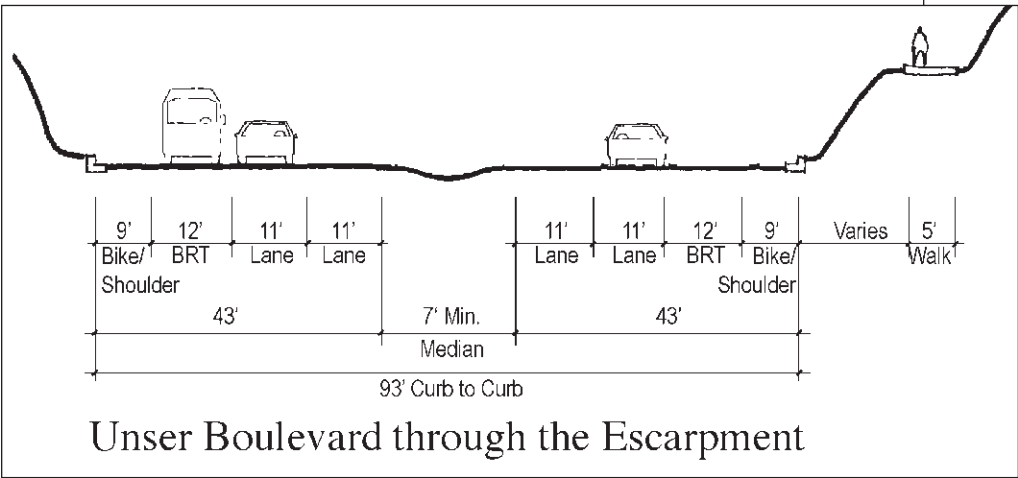
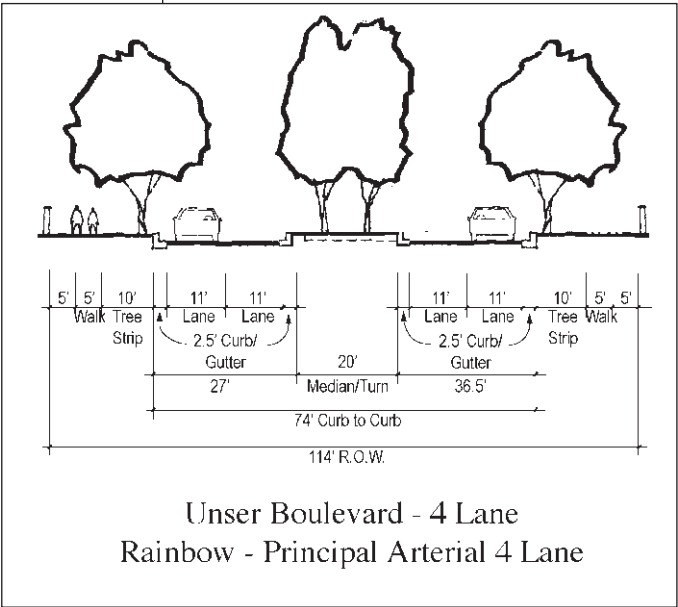


Unser Boulevard Access Lane One Side – Urban Boulevard

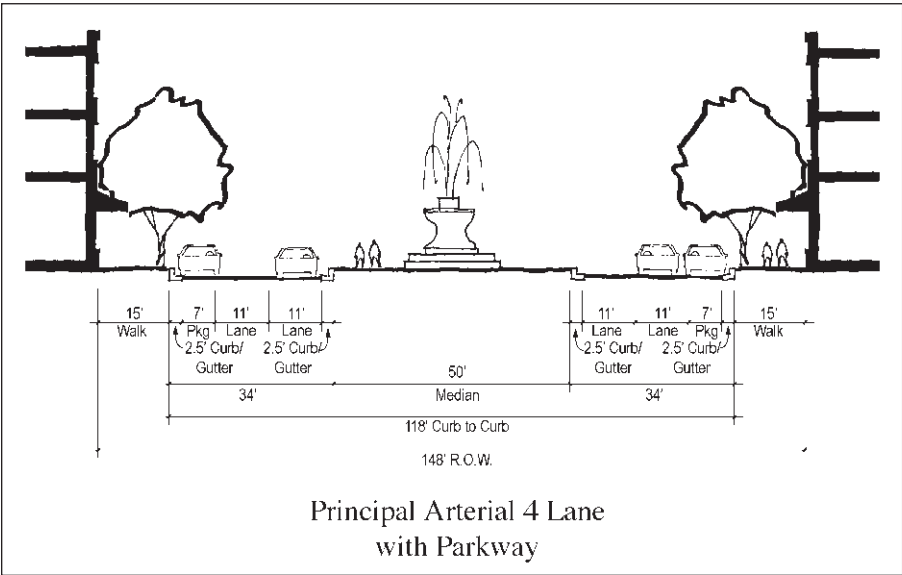
Cross Section 4

Cross Sections for Arterials

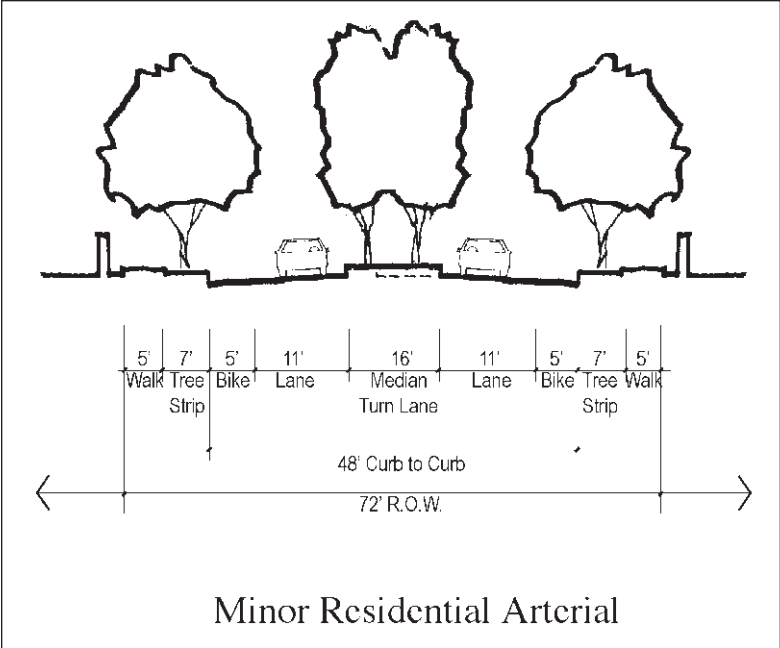
Cross Section 5
Rainbow has four drive lanes
(two each direction) and
one median/ turn lane.



Cross Section 6

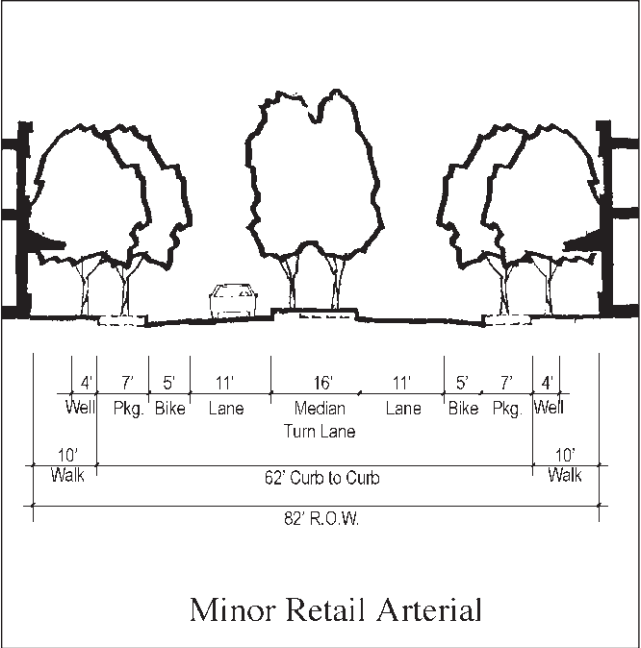


Cross Section 7
This section is appropriate
for Rainbow Blvd. through
the Rainbow Village Center.



Cross Section 8

Universe has two drive lanes (one each direction) and one median/ turn lane. Bike lanes are also incorporated.



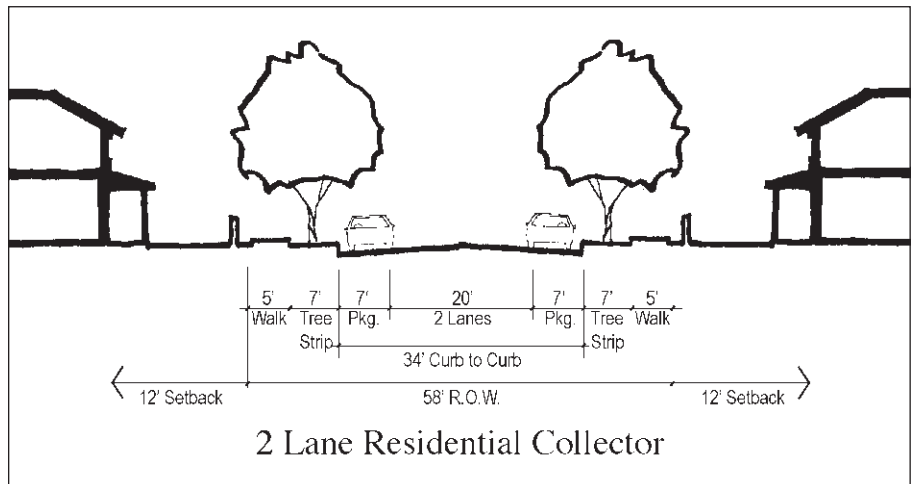
Cross Section 9

Where urban uses like retail uses, apartments or townhouses are anticipated, parking lanes should also be provided.

Cross Sections for Collectors

Collectors. Collectors have two 10-foot travel lanes and parking lanes. Collectors are key to creating an outdoor room effect in the interior of pedestrian-oriented centers.

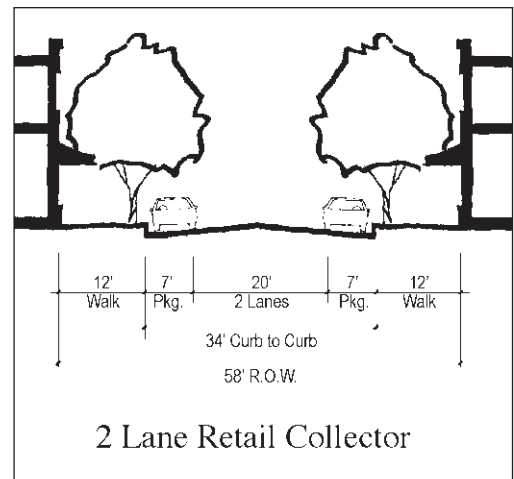
- **Retail Collector** “Main streets” establish conditions favorable for creating shopping streets with abutting retail or other commercial uses. On-street parking is provided to support street-facing commercial uses. With higher levels of pedestrian activity, sidewalks with tree grates extend to the curb.
- **Collectors — Typical** Collectors have on-street parking and sidewalks to support street-facing entrances and uses on abutting parcels (except near major intersections where on-street parking may be eliminated and a turn-lane may be introduced).
- **Collector Parkway** — The Plan recommends the creation of a linear parkway (shown as Town Center Parkway on the Road Network) consisting of a 40 ft landscaped median that extends between the heart of the Town Center to a park just above the Monument escarpment. Collector-level traffic and BRT will be accommodated and will be one-way along each edge of the parkway to maintain a strong connection between the parkway and abutting uses and minimize pedestrian crossing distances. When framed by urban buildings, linear parkways create a strong sense of place. This parkway will also provide a dramatic view of the Town Center to the Sandia Mountains to the east. When on the east side of the park, motorists and pedestrians will also have views of the volcanoes to the southwest.



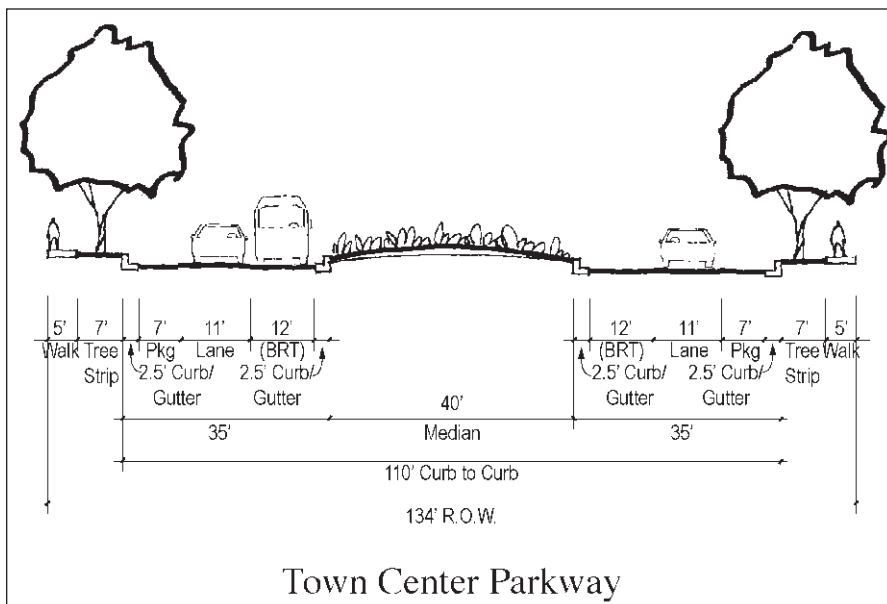
Cross Section 10

Collectors have two 10-foot travel lanes and parking lanes as shown in Cross Section 10 and 11.

Collectors are key to creating an outdoor room effect in the interior of pedestrian-oriented centers.

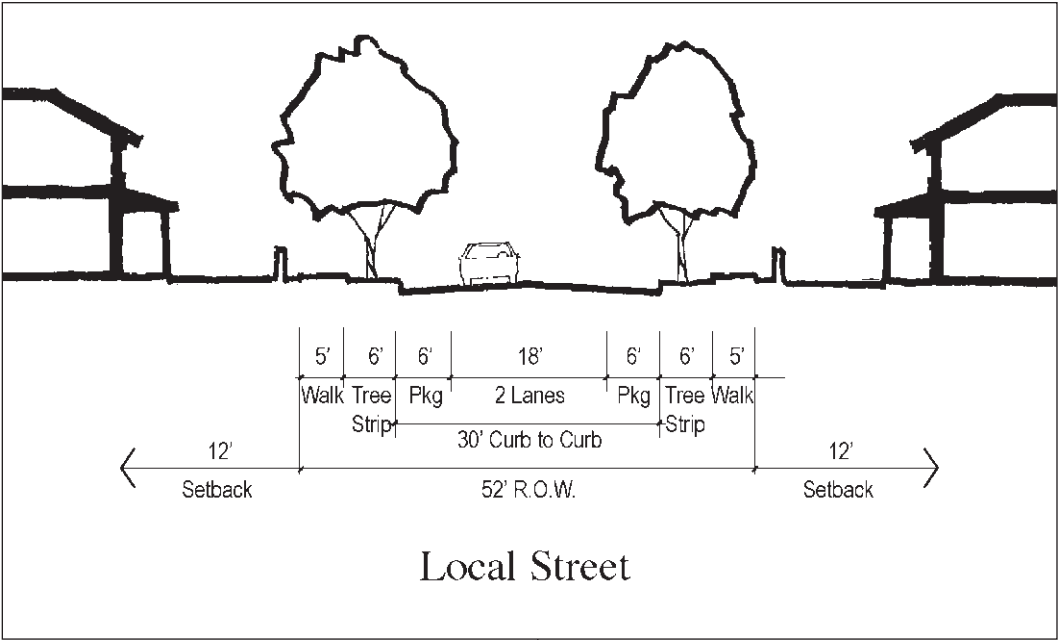


Cross Section 11



Cross Section 12

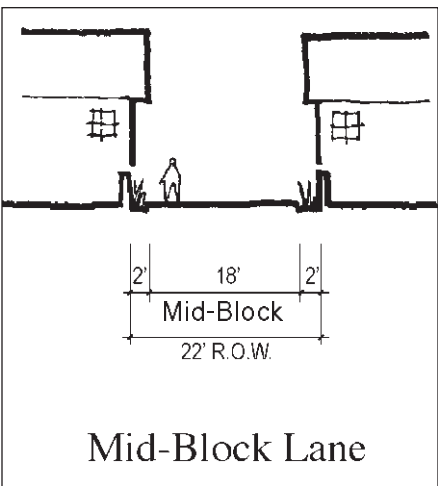
Local Streets. Generally, local streets are not shown on the Road Network map. Local streets have two (2) 9-foot travel lanes, which emphasize pedestrian safety over vehicular speed. With low traffic volumes, conflicts between traffic and parked-car doors are rare, and 6' parking lanes are appropriate. When engineering curves, a maximum design speed of 25 miles per hour should be assumed. If interconnected and frequently spaced, a network of local streets will avoid concentrations of traffic that require wider travel lanes elsewhere.



Cross Section 13

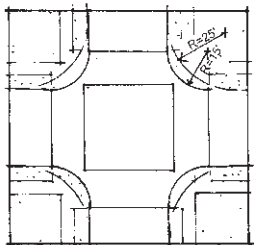
Parking — Typical Where abutting uses have a commercial, industrial, cultural or educational component, and where residential uses exceed a density of 5 dwellings per net acre, parking shall be provided on both sides of the Local Street (except where elimination of a parking lane can help avoid significant natural or archeological resources).

Parking — 1-Side. Where abutting uses are residential with density less than 5 dwellings per net acre, parking shall be provided on only one side of the Local Street.

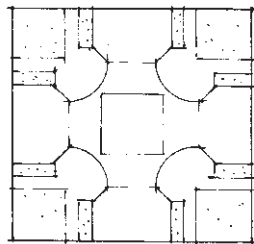


Cross Section 14

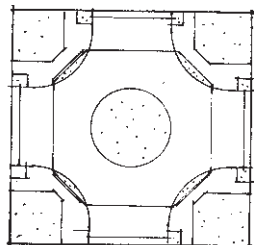
Traffic Calming Features



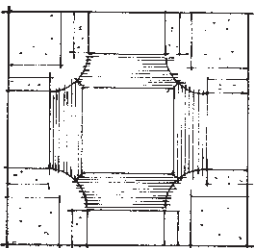
Curb Radii: Tighter curb radii slow traffic and reduce pedestrian crossing distances.



Bulbouts: Slow traffic and reduce pedestrian crossing distances further.



Circles: Slow traffic without stopping it with higher efficiency than 4-way stops.



Articulated crosswalks signal pedestrian crossings but do not slow traffic significantly.

Diagram 4

Mid-Block Lanes Mid-block lanes provide access to garages and service areas placed behind buildings, thereby avoiding negative visual and transportation impacts of garages doors, parking structures and service areas that face streets. Mid-block Lanes are encouraged in Town Center, Village Center, Main Street, Office and Urban Residential areas. Mid-block lanes should also be used wherever street-facing buildings are desired but curbcuts are problematic, and where buildings front onto open space with no intervening street.

Traffic Calming Features

To discourage fast and cut-through traffic, traffic calming should accompany the interconnected street network called for in these standards. A measure of traffic calming will be provided through the use of appropriately dimensioned travel and parking lanes. (Excessive street width has been identified as a major contributor to higher vehicle speeds and a higher incidence of severe injuries.) Additional techniques may be employed to calm traffic, in support of pedestrian safety and convenience.

Curb Radii. To reduce pedestrian crossing distances and slow traffic curb radii shall not be more than 15', except where no pedestrian crossing is expected, significant truck or bus traffic is expected; or where there are special demands for acceleration or deceleration. Where curb radii exceed 15', other measures should be considered to support pedestrian safety.

Bulbouts. Bulbouts extend curbs and replace parking lanes. They are especially warranted at intersections and other pedestrian crossings in areas with: high pedestrian activity; where motorists need to be alerted that they are entering a pedestrian-oriented area (e.g. “gateway” locations), and where pedestrian refuge and short crossing distances are critical (e.g. near facilities for children or senior citizens).

Offset Intersections. Travel routes that force turns because of offset intersections, slow traffic and discourage cut-through traffic. For special places such as locations of civic buildings, intersections should be offset by at least 100 feet, unless the road geometry provides adequate sight lines. Offset intersections also provide special vista opportunities for parks, civic buildings, building entries, monuments, or exceptional architecture.

Circles. Traffic circles slow traffic while offering capacities for turning movements that usually exceed conventional 4-way intersections. Circles can be small enough to be placed in the middle of typical intersections, or large enough to accommodate parking and handle complex intersection geometries. Intersections recommended for traffic circles are shown on the road network.

Articulated Crosswalks. At crosswalks, special visual and physical features can signal the needs of pedestrians to motorists. Articulation can be created through the use of signage, lighting, special pavers, textured concrete, and highly reflective paint. Where traffic volumes are low and pedestrian volumes are high, crosswalks are to be placed at the same level as abutting sidewalks to make vehicles ramp up to that level and signaling that pedestrians take precedence.

Arroyo Crossings . At arroyos, the length of culverts (i.e. the width of bridges) should be minimized by eliminating both the median and landscape strips. Bridge concrete, railings and barriers should be brown.

Landscaping. Street trees and landscaping improve pedestrian comfort and contribute to the image and identify of Volcano Heights and its districts. Street trees should be spaced not less than 40 feet on center.

IV. Open Space for a more detailed description of landscaping appropriate for streets. For each type of street in Volcano Heights, there should be a preferred palette of trees, shrubs, groundcover, light poles and light fixtures. (Street types are noted at the beginning of Transportation). The City of Albuquerque should undertake the creation of this palette. Masterplanned projects shall submit a proposed palette for consideration by City staff.

Street Lighting Light standards shall not exceed a height of 20’ on Arterials and Collector Streets, and 16’ on Local Streets and alleys. Cobrahead light standards should not be used, except at the largest intersections. On Scenic Routes — and in other locations adjacent to arroyos or the open space buffer adjacent to Petrography National Monument — only light bollards should be used, except where a light pole is critical for safety. Light standards should utilize metal standards with a durable, low-luster finish. Fixtures should provide “cut-off” angles and light standards should be positioned to avoid glare into residential units. Specific light standards and fixtures should be identified and approved as part of more detailed Plans.

Above-Grade Obstructions. Utility boxes, light standards, newsracks, postal boxes, street furniture, and other potential impediments to pedestrian movement should be positioned to maintain continuous and uninterrupted pedestrian routes.

Signage. A signage program should be identified and approved as part of more detailed master plans, and should include monument signage at major gateways (street entries) to Village Centers and the Town Center.

Sustainable Design

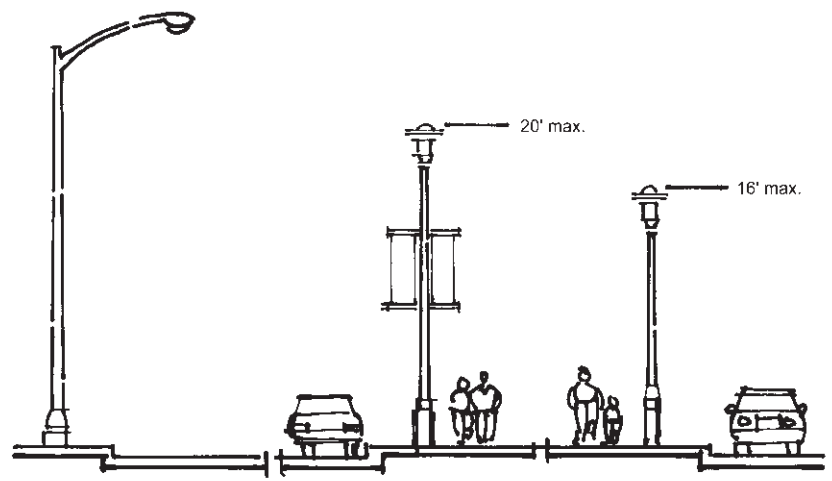
Diagram 6 shows how street features can improve stormwater quality and permit stormwater infiltration. Typically, curbs and gutters collect and concentrate pollutants, and direct them into pipes that carry pollutants to arroyos, rivers and other waterways. Sustainable design features allow stormwater to be filtered or percolate into the ground, and can reduce the demand for and cost of conventional pipes.

Swales With Curbs. Where streets are abutted by commercial or residential uses in excess of 2 dwellings per net acre, curbs shall accompany swales. Regularly spaced curb inlets or drains shall be used to direct stormwater from gutter to swale.

Swales Without Curbs. Curbless streets allow rain to sheet into streetside swales without interruption. Curbs need not be used where residential densities are less than 2 dwellings per net acre and swales are provided, and where streets abut arroyos. Where streets abut arroyos, gravel shoulders may be substituted for parking lanes. For maintenance, a concrete band shall be poured at the edge of the street to accommodate uninterrupted drainage.

Permeable Paving. Permeable concrete or unit pavers may be used for driveways and parking areas. Permeable pavers should not be used in locations of high use. Porous concrete can be laid above subsurface stormwater storage and infiltration areas to meet discharge needs, and becomes cost-effective in dense urban settings.

Street Lighting



Discouraged
except at arterial
intersections.

Encouraged
for arterials
and collectors.

Required
for local streets.

Banners for
shopping streets.

Diagram 5

Swale Streets

Urban Curb with Inlet to Swale

Urban Curbless Drainage to Swale

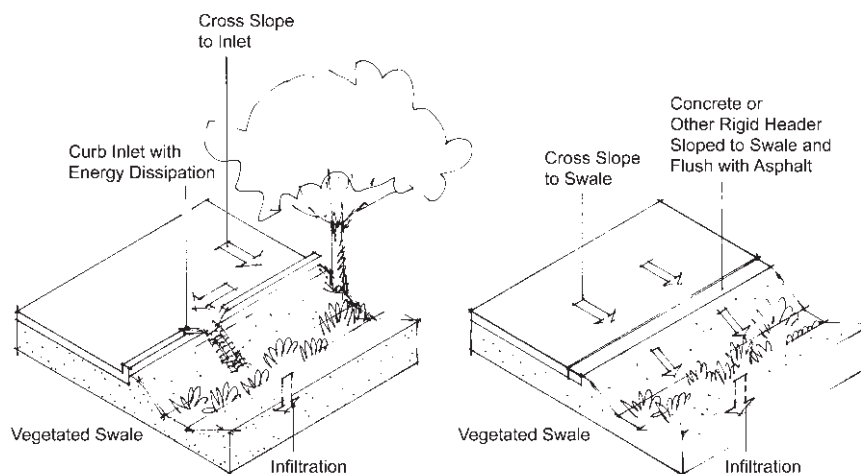


Diagram 6

4. TRANSIT NETWORK

Transit plays a vital role in reducing regional traffic congestion, but to be widely used it must be fast, frequent, and reliable. Volcano Heights' emphasis on walkability and urban development will make more frequent transit service viable. The Bus Rapid Transit (BRT) system proposed for the area uses dedicated bus lanes and emerging technologies to make travel times competitive with the car. As proposed, BRT would whisk area residents and workers to and from central Albuquerque, and to and from jobs in the I-25 corridor.

Transit Network. The proposed Transit Network is depicted on **Exhibit 19** Transit stops and/or stations should be located to maximize the number of residents and workers who can walk less than one-quarter mile to a stop or station. On these routes, crossings of a limited-access arterial or arroyo will need special design treatment to ensure safe and easy pedestrian crossings. Transit stops or stations should be placed near the center of Village Centers, Town Center, and adjacent to where retail conveniences, schools and public amenities are planned. See the Transit Network for recommended placement of transit stops, stations, and Bus Rapid Transit (BRT) transfer stations. At the same time reasonably direct routes and acceptable system-wide travel speeds should be maintained.

Long Range High Capacity Transit Plan. The map showing transit recommendations at a regional scale is shown as **Exhibit 20**. The most significant change in the Long Range map is the recommendation to designate Unser Blvd. as suitable for High Capacity Transit, and to link it within the Plan Area with an extension of BRT on Paseo del Norte extending west of Coors. The roadway design recommendations for Unser and PdN in the Plan incorporate potential for BRT. These Plan recommendations focus on ultimate conditions. Transit improvements may be phased and interim routing may be different than ultimate routes in some locations. The Long Range High Capacity Transit Plan shall be amended to be consistent with adopted recommendations.

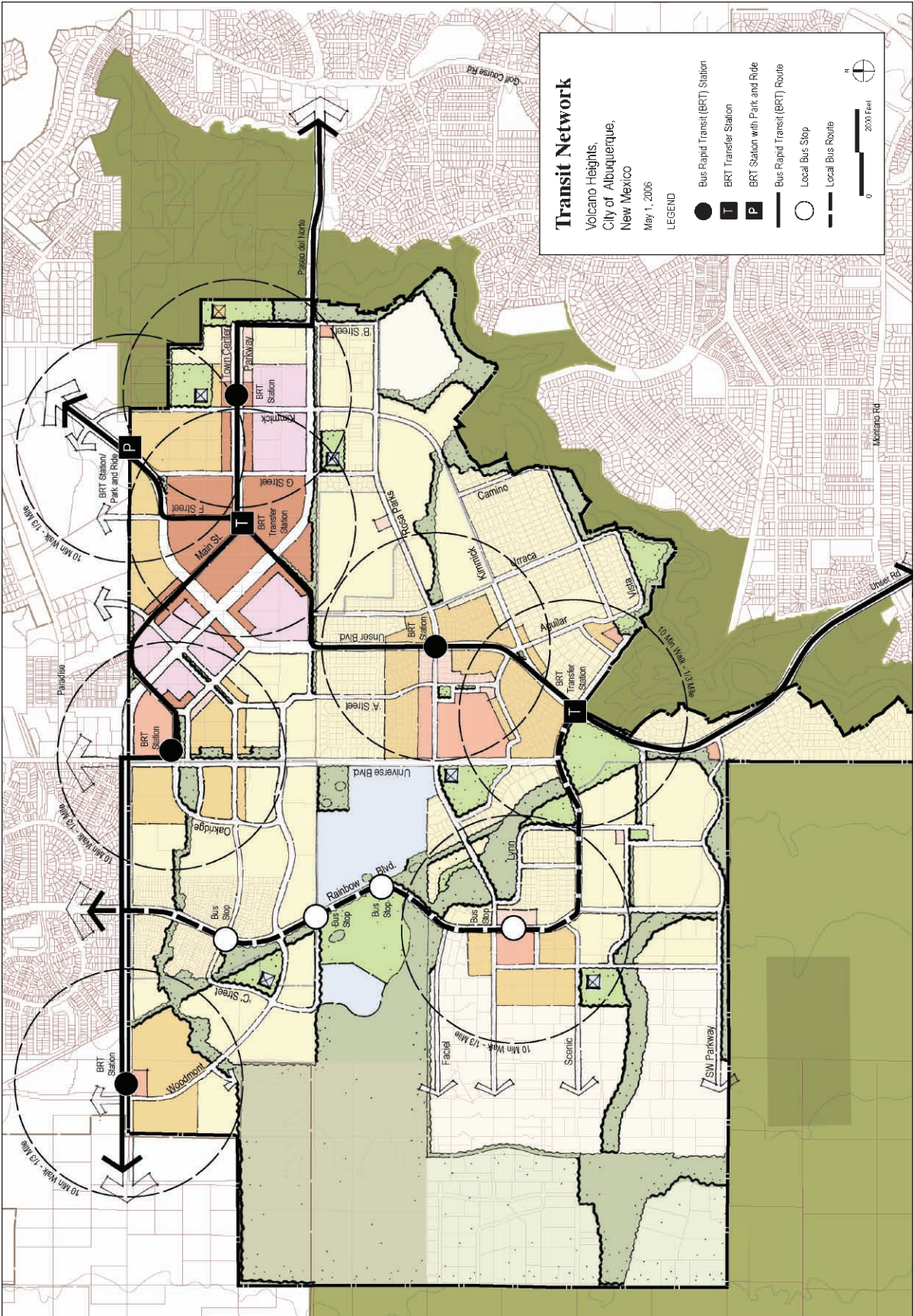
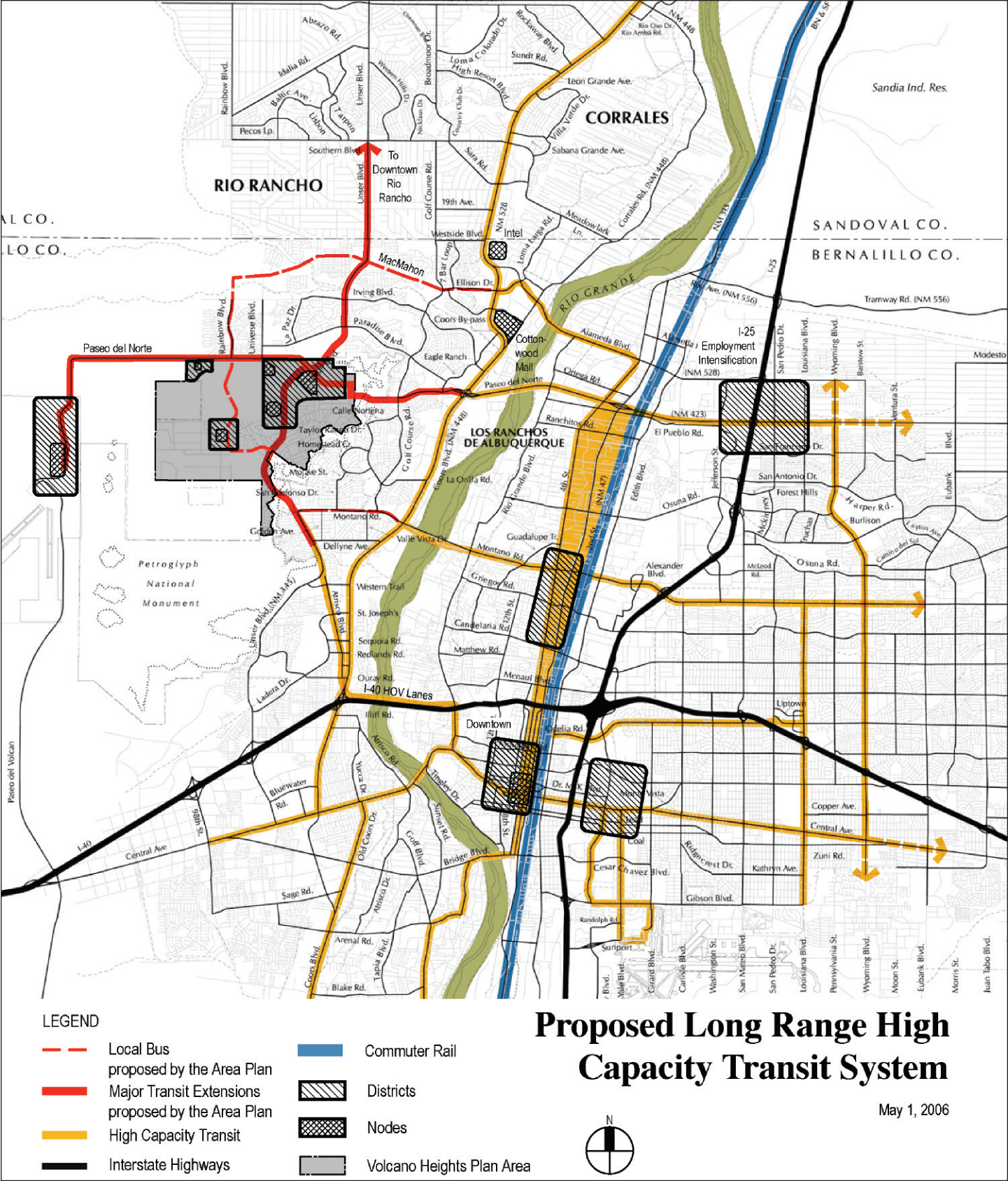


Exhibit 19



High Occupancy Vehicle (HOV) Lanes & Bus Rapid Transit (BRT). Travel lanes dedicated solely to buses and other high occupancy vehicles speed travel time for those who car pool or use transit. Paseo del Norte (PdN) and Unser should be designed to accommodate travel lanes for BRT/ HOV lanes, as indicated by Cross-Sections 1, 2, 6. A BRT and future light rail station shall be maintained near the center of the Town Center to enhance its pedestrian- and locational-advantages. Lanes solely for the use of BRT should connect HOV lanes along PdN and Unser with the center of the Town Center, and possibly the Village Center at Universe and PdN.

Transit-Oriented Development To attain high transit ridership, transit-supportive uses should predominate within a third of a mile (1,760 feet) of transit stops, including Town Center, Village Center, Main Street, Office, Schools and Urban Residential uses (See Diagram 7). Consideration should be given to transit system policies, which emphasize more frequent service along high-density corridors.

Convenience and Access. Pedestrian routes to transit stops should be reasonably direct (along streets and/or off-street paths); circuitous routes should be avoided. Transit stops should be placed near retail conveniences and community amenities.

Signal Preferencing. To improve travel times by transit, light signals in the Volcano Heights area should incorporate signal-preferencing technology ("queue jumping") to give buses priority at intersections.

Pre-Boarding Fare Systems. Consideration should be given to technology that requires bus fares to be paid prior to boarding, thereby greatly reducing boarding and transit travel times.

Transit Centers. Transfer between BRT routes should occur at a "transit center" near the center of the Town Center; this transit center may also serve local buses and paratransit (like taxis). Transfer between BRT and local bus should be facilitated by a transit center near where Rainbow, Universe, and Unser converge; the more detailed Plan for this area should consider how this "transit center" might be accomplished.

Park & Ride. The park where Rainbow, Universe, and Unser converge presents a special "park & ride" opportunity, and its design should consider how future parking could be introduced. If BRT on Unser extends beyond the northern edge of the Plan Area, land should be reserved for the creation of a "Park & Ride" lot as a way of intercepting traffic flowing from Rio Rancho and other points to the north. Parking structures can provide greater security for parked vehicles and are desirable at these locations.

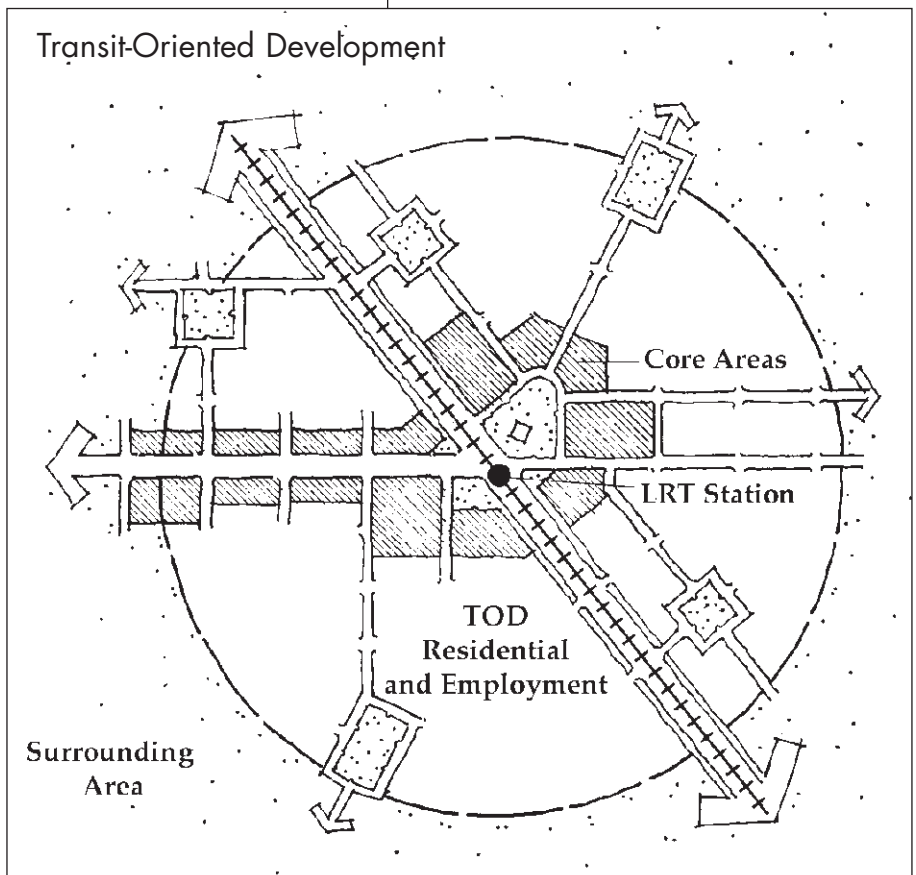


Diagram 7
Transit-Oriented Development

Transit Stop & Station Design. The approach to transit stops/stations should offer direct pedestrian routes, and be tree-lined and barrier free. Transit stops and/or stations should be designed as prominent focal points, offering well-lighted shelters with attractive architecture, and lying within or adjacent to plazas or other civic features. Shelter may be incorporated within the architecture of adjacent buildings, through the use of arcades or durable awnings. Transit route and system maps should be displayed at all stops/stations. Bicycle storage boxes should be located at major transit stops.

5. TRANSPORTATION DEMAND MANAGEMENT

Comprehensive Programs. The City should require the preparation and conditions for the implementation of a Transportation Demand Management (TDM) plan, when considering approvals relating to large employers or development projects. TDM provisions support alternatives to the car, by offering incentives for ridesharing, transit use, bicycling, and walking. Incentives may include: reduced parking requirements, reduced development fees, development intensity bonuses; and/or the creation of transportation management associations to coordinate efforts among multiple users in the same area.

6. BICYCLE TRAIL NETWORK

The ***Bicycle Trail Network*** includes some separated trails that are also part of the Multi-Use Trail system described in the Open Space section. Separate bicycle trails combined with walking are proposed along the Escarpment edge, along the former alignment of Rainbow, and along planned open space on the western edges of the Plan Area. A bike lane is proposed along Universe (see Cross-Sections 8 and 9 for Minor Arterial). Class 3 bike routes signed for bicycles but without a separate bike lane are recommended for Collector streets such as Rosa Parks, Woodmont, and the Town Center Parkway.

Trail design provisions for bicycles and pedestrians are contained within the Open Space Element.

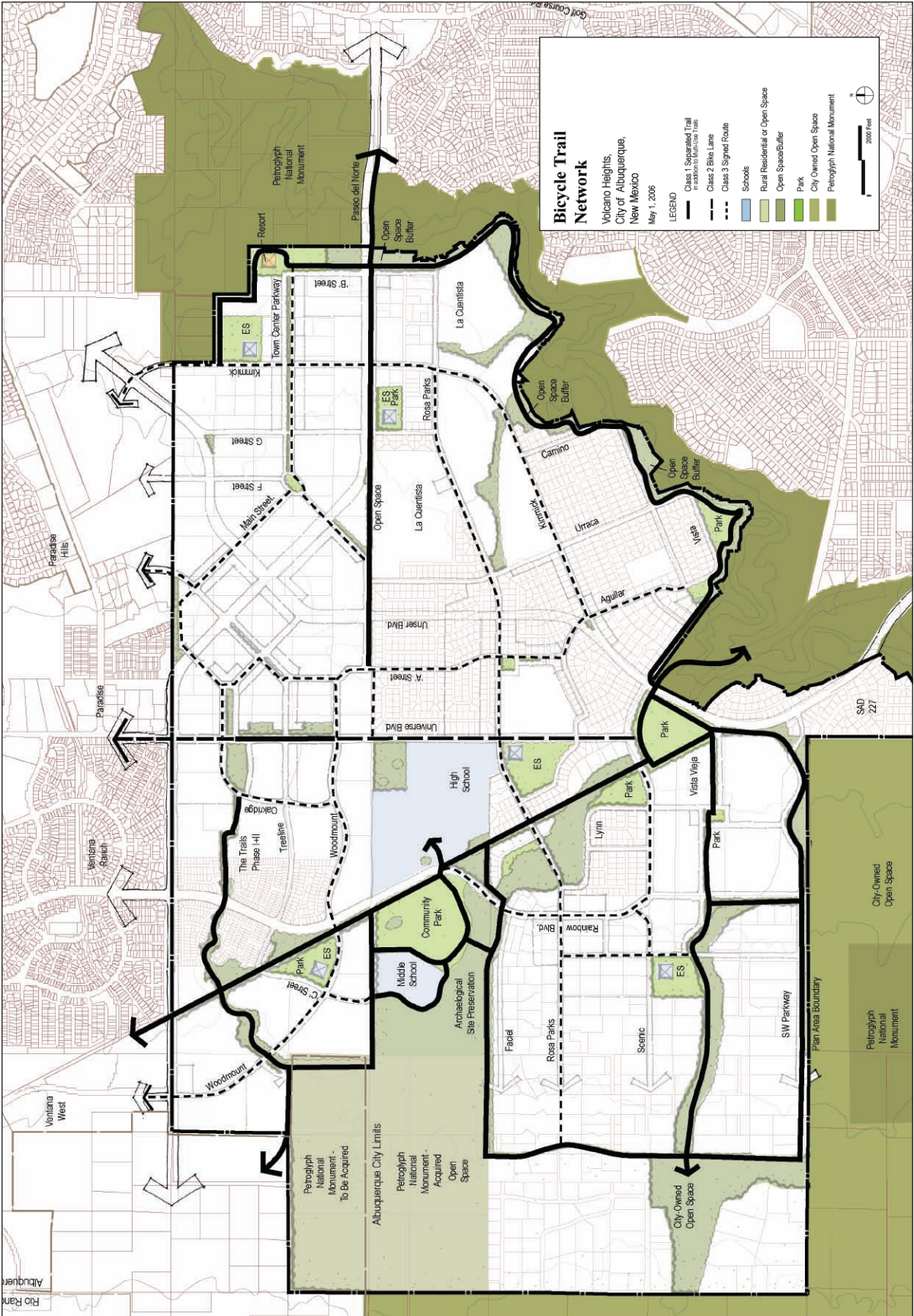


Exhibit 21